

Diagnosis, monitoring or prognosis of diabetes or prediabetes



Business area

Diagnostics

Market sector

Diabetes diagnostics kits

Medical Indication

Screening for type 2 diabetes in adults

Research goal

In 2019 there were more than 400 million people living with diabetes worldwide and prevalence is increasing. Without proper management, diabetic patients can develop serious complications that reduce life quality and expectancy. Although a definitive cure is not on the horizon as diabetes has become better understood, there has been increasing research focusing on identifying biomarkers which could be used for predicting the risk of diabetes, the disease course, potential response to therapy and identification of individuals at risk of developing complications.

Problem to solve

Oral glucose tolerance test (OGTT) is a marker of early impaired glucose homeostasis and is a more sensitive method of prediabetes and diabetes diagnosis than fasting plasma glucose and hemoglobin A1c. However, OGTT is relatively costly, can be complicated, and have low reproducibility in some settings. The test protocol requires that the patient ingest an oral load of 75 g of glucose and undergo multiple blood draws over a two-hour period, which can be inconvenient and invasive. The need for timed samples creates logistical and analytical constraints. Despite its indication for T2D screening, OGTT is not usually performed on non-pregnant adults. It is necessary to look for and identify a more robust, convenient, and accurate biomarker for the diagnosis of T2D.

Innovation

There is currently nothing on the market similar to what we propose: using the percentage of certain proteins bound to glucosaminoglycans (GAGs) in a fasting serum sample as an alternative to an oral glucose overload for the diagnosis of diabetes and prediabetes. It could also be used in the screening or selection of patients who are candidates for an oral glucose overload, as well as for the follow-up or prognosis of diabetes and/or prediabetes.

Market opportunity

Globally, an estimated 422 million adults were living with diabetes in 2014, compared to 108 million in 1980. The global prevalence (age-standardized) of diabetes has nearly doubled since 1980, rising from 4.7% to 8.5% in the adult population. The most common form of diabetes mellitus, type 2 diabetes (T2D), represents approximately 90% of all cases worldwide.

Research team

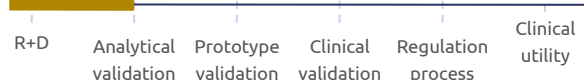
The research methods group of the Health Research Institute of Santiago de Compostela has experience in other patent protections, with one already licensed.

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Intellectual property

European patent application, number **EP23382220** "Diagnosis, monitoring or prognosis of diabetes or prediabetes"

Development stage:



Available for: *Licensing, co-development*